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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/537,298  
Filing Date: June 02, 2005  
Appellant(s): TENRA ET AL.

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Michael E. Fogarty  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed February 19, 2008 appealing from the Office action mailed August 16, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

<b>6,322,743</b>	<b>STROOBANTS</b>	<b>11-2001</b>
<b>10-110,887</b>	<b>YASUAKI (Japan)</b>	<b>4-1998</b>
<b>08-303,686</b>	<b>MOTOYUKI (Japan)</b>	<b>11-1996</b>

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The rejection of claims 2, 11-14 and 18 under 35 U.S.C. 102(b) as being anticipated by Stroobants 6,322,743 is hereby withdrawn as cumulative.

The rejection of claims 8-10 under 35 U.S.C. 103(a) as being unpatentable over Stroobants in view of the Japanese patent document 08-303686 is hereby withdrawn as cumulative.

The rejection of claim 19 under 35 U.S.C. 103(a) as being unpatentable over Stroobants is hereby withdrawn as cumulative.

Claims 2, 11, 13, 14 and 18 stand rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese 10-110,887 Yasuaki. The reference discloses a vacuum heat insulator comprising a gas barrier envelope with a heat sealable layer 3 wherein the envelope covers a flat core member 2 and is heat-sealed around the core member; see Figure 1 and the Abstract. The envelope is heat sealable and therefore contains a heat sealable layer. Also, the envelope is heat sealed where the core member is not present within the envelope, such as between the individual core pieces 2 and around the outer edges of the core pieces 2. This results in the envelope between where the core pieces 2 are present and where the core pieces are not present being heat sealed

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completely around the core pieces, i.e. along the core member shape. The terms "heated", "pressed", "cut off" and "cut off by melting down" used in the instant claims 2, 11 and 14 are process limitations that do not add any structurally distinguishing features to the final product that would distinguish it over the prior art product. Concerning claim 13, there are widths of heat sealed portions between the core pieces 2 in the product of the reference; see Figures 1 and 2.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese patent document 10-110887 Yasuaki in view of the Japanese patent document 08-303686 Motoyuki. The primary reference discloses a vacuum heat insulator comprising a gas barrier envelope with a heat sealable layer 3 wherein the envelope covers a flat core member 2 and is heat-sealed around the core member; see Figure 1 and the Abstract. The envelope is heat sealable and therefore contains a heat sealable layer. Also, the envelope is heat sealed where the core member is not present within the envelope, such as between the individual core pieces 2 and around the outer edges of the core pieces 2, which results in the envelope between where the core pieces 2 are present and where the core pieces are not present being heat sealed completely around the core pieces, i.e. along the core member shape. The terms "heated", "pressed", "cut off" and "cut off by melting down" used in the instant claims are process limitations that do not add any structurally distinguishing features to the final product that would distinguish it over the prior art products. The secondary reference discloses providing a hole through a vacuum insulation product wherein the enveloping material can be cut through after forming the product. It would have been obvious to

one of ordinary skill in the art to provide a hole in the products of the primary references in view of the teachings in the secondary reference in order to allow a tube, etc. to run through the insulation after installation.

Claim 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese patent document 10-110887 Yasuaki in view of Stroobants 6,322,743. The primary reference discloses a vacuum heat insulator comprising a gas barrier envelope with a heat sealable layer 3 wherein the envelope covers a flat core member 2 and is heat-sealed around the core member; see Figure 1 and the Abstract. The envelope is heat sealable and therefore contains a heat sealable layer. Also, the envelope is heat sealed where the core member is not present within the envelope, such as between the individual core pieces 2 and around the outer edges of the core pieces 2, which results in the envelope between where the core pieces 2 are present and where the core pieces are not present being heat sealed completely around the core pieces, i.e. along the core member shape. The terms "heated", "pressed", "cut off" and "cut off by melting down" used in the instant claims are process limitations that do not add any structurally distinguishing features to the final product that would distinguish it over the prior art product. The secondary reference discloses the desirability of applying heat and pressure to a vacuum insulation panel during evacuation and sealing to improve flatness; see column 2, lines 6-37. It would have been obvious to one of ordinary skill in the art to apply pressure and heat to the envelope and core of the primary reference's product in view of the teachings in the secondary reference in order to prevent wrinkles in the final product. If heat/pressure is applied to the entire laminate of the primary

reference during heat sealing as suggested in the secondary reference than the envelope will become bonded to the core material as a result of its softening during heat sealing.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese patent document 10-110,887 Yasuaki. The reference discloses a vacuum heat insulator comprising a gas barrier envelope with a heat sealable layer 3 wherein the envelope covers a flat core member 2 and is heat-sealed around the core member; see Figure 1 and the Abstract. The envelope is heat sealable and therefore contains a heat sealable layer. Also, the envelope is heat sealed where the core member is not present within the envelope, such as between the individual core pieces 2 and around the outer edges of the core pieces 2, which results in the envelope between where the core pieces 2 are present and where the core pieces are not present being heat sealed completely around the core pieces, i.e. along the core member shape. The terms "heated", "pressed", "cut off" and "cut off by melting down" used in the instant claims are process limitations that do not add any structurally distinguishing features to the final product that would distinguish it over the prior art products. It would have been obvious to one of ordinary skill in the art to make the insulation product of the reference any particular size depending on the particular end use since such a modification would have involved a mere change in the size of a component and a change in size is generally recognized as being within the level of ordinary skill in the art.

#### **(10) Response to Argument**

Concerning the rejection of claim 2, (the only independent claim), appellant argues that "the prior art does not disclose (expressly or inherently) that the enveloping member is heated and pressed in a portion where said core member is present within the envelope, and at portions of said envelope member where said core member is not present within the envelope". However, this limitation is nothing more than a process limitation and does not add any structurally distinguishing features to the claimed product which would distinguish it from that of the Yasuaki product. Appellant further argues that Yasuaki's product "does not include any through hole or any other portion in which the core material is not present". This is not convincing because claim 2 does not require that a hole be present in the claimed product, and Yasuaki's product, as shown in Figures 1 and 2, clearly discloses portions of the heat seal layer where the core material 2 is not present within the enveloping member, namely, *the areas between the core material pieces 2*. Appellant further argues that Yasuaki "does not teach any area where the portions of the heat seal layer are closely attached to each other so as to be along the core member shape at the border between the portion where the core member is present within the enveloping member and the portion where the core member is not present". However, as clearly shown in Figures 1 and 2 of Yasuaki, the heat seal layer 3 is closely attached together at areas where the core member is not present, namely areas between the core material pieces 2, and said heat seal layer in these areas is also along the edges of the core member or members 2 and actually abuts the core material pieces. Therefore, the instantly claimed product does not distinguish over that of Yasuaki. Regarding appellant's reliance on Figure 8 of his



disclosure in his arguments regarding claim 2, this Figure is not representative of the broad scope of claim 2, only instant claims 8-10 are directed to through-holes in the core member. Instant claim 2 is broad enough in scope to read on structures shown in appellants own disclosure at Figures 1, 2, 11, 12, 13, etc. which are similar to that of Figures 1 and 2 of Yasuaki.

Concerning claims 8-10, appellant argues that the secondary reference Motoyuki '686 does not disclose "that the enveloping member is present wherein the heat seal layers are fused over the holes and along the shape of the through holes". Appellant concedes that Motoyuki discloses sealing his envelope, i.e. the heat seal layers, along the inner periphery of his through hole 31, but states that this sealing or seal part 24 is not "over the through hole" and therefore does not meet instant claim 8. However, because claim 8 does not require that the envelope be sealed over the entire cross-sectional extent of the through-hole, the seal 24 in Motoyuki's product, which is over the outer periphery of the through-hole 31 (see Figure 3 in Motoyuki), meets the instant claim limitation of being "over the through hole". Regarding claim 9, appellant does not provide any specific arguments directed to this claim, therefore, it is deemed to stand or fall with claim 8. Concerning claim 10, appellant argues that this claim distinguishes over the prior art because there is not a hole formed in the envelope in the area of the through-holes in the core members and that Motoyuki's product has a hole in the envelope in the area of the through-holes. However, Motoyuki discloses that, after forming his vacuum insulated panel, the envelope in the area of the through-holes in the core material may be cut or slit in order to form a through hole for subsequent insertion

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of a tube. Therefore, before the envelope of Motoyuki is cut or slit to allow passage of a tube there through, the envelope does not have a hole therein and meets the instant claim limitation.

Concerning claims 12 and 19, appellant does not provide any separate arguments as to patentability of these claims other than the fact that they depend on claim 2.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

**(12) Attachments**

See Attached translations of Japanese patent documents 10-110887 (Yasuaki) and 08-303686 (Motoyuki).

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

//Alexander Thomas//

Primary Examiner, Art Unit 1794

Conferees:

/Rena L. Dye/

Supervisory Patent Examiner, Art Unit 1794

/Gregory L Mills/

Supervisory Patent Examiner, Art Unit 1700

